

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Geoffrey B. Rhoads

Art Unit: 2154

Conf. No.: 1576

Application No.: **10/090,775**

Filed: March 6, 2002

For: NETWORK LINKING USING INDEX
MODULATED ON DATA

Via Electronic Filing

Examiner: Viet Vu

Date: May 3, 2007

APPEAL BRIEF

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Sir:

Appellants respectfully request the Board of Patent Appeals and Interferences (hereafter the “Board”) to reverse the outstanding final rejection of the pending claims.

This Appeal Brief is in furtherance of a Notice of Appeal filed January 4, 2004. Please charge the fee required under 37 CFR 1.17(f) or any other fee needed to consider this Appeal Brief to our deposit account no. 50-1071.

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REAL PARTY IN INTEREST

The real party in interest is Digimarc Corporation, by an assignment from the inventor in parent application no. 08/508,083, recorded at Reel 007616, frames 0746-0748, on July 27, 1995, and a confirmation of assignment recoded at Reel 008757, frames 0793-0795 on October 14, 1997.

RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences.

STATUS OF CLAIMS

Claims 7, 37, 67 and 96-98 are pending in the present application. Each of these claims stands finally rejected. Please see the Office Action Summary in the final Office Action mailed August 4, 2006 – hereafter referred to as “the final Office Action”.

STATUS OF AMENDMENTS

All earlier-filed amendments have been entered.

SUMMARY OF CLAIMED SUBJECT MATTER

The claimed invention relates to encoded audio signals. Encoded audio signals may include an index that can be used for computer network navigation. A decoded index can be presented to a database to obtain a pointer (e.g., a URL, IP address, or network address), e.g., identifying a remote network location.

Claim 7 recites a method of connecting a user computing device to one of a plurality of remote computers available for communication over a network (see, e.g., paragraphs [0003], [0006], [0008] and [0306]). The method includes: a) reading an audio signal to obtain an index encoded therein (see, e.g., paragraphs [0306] - [0308], [0311] and [0315]); b) accessing a database with the index, the database comprising a plurality of records that link an index to a pointer which identifies a remote computer on the network (see, e.g., paragraphs [0006], [0009],

[0300], [0306], [0311] and [0322]); c) obtaining a pointer from the database with at least reference to the index (see, e.g., paragraphs [0006], [0009], [0300], [0306], [0311] and [0322]); and d) using the pointer to establish communication with the remote computer identified thereby (see, e.g., paragraphs [0003], [0008], [0306] – [0311] and [0315]).

Claim 37 recites a system including: a. a user computing device (see, e.g., paragraphs [0003] and [0310] and Fig. 27, reference 1004); b. an input device associated with the user computing device, wherein the input device is configured to obtain an index from an encoded audio signal (see, e.g., paragraphs [0306] - [0308], [0310], [0311] and [0315]); and c. means for storing a database comprising a plurality of records that link an index to a pointer which identifies a remote computer (see, e.g., paragraphs [0006], [0009], [0300], [0306], [0311] and [0322]). The user computing device includes: means for accessing the database to extract a pointer from the database with at least reference to the index (see, e.g., paragraphs [0306] - [0308], [0310], [0311], [0315] and [0322]; see also Fig. 27, reference 1004); and means for using the pointer to establish communication with the remote computer identified thereby (see, e.g., paragraphs [0003], [0008], [0306] – [0311], [0315] and [0322]; see also Fig. 27, reference 1004).

Claim 67 recites a user computing device including: a. an input device configured to obtain an index from an encoded audio signal (see, e.g., paragraphs [0306] - [0308], [0310], [0311] and [0315]; see also Fig. 27, reference 1004); and b. computer processing circuitry (see, e.g., paragraphs [0003], [0187] and [0307]) to execute instructions to: utilize the index to access a database comprising a plurality of records that link an index to a pointer which identifies a remote computer (see, e.g., paragraphs (see, e.g., paragraphs [0006], [0009], [0300], [0306], [0311] and [0322]); retrieve from the database a pointer with at least reference to the index (see, e.g., paragraphs [0006], [0009], [0300], [0306], [0311] and [0322]); and use the pointer to establish communication with the remote computer identified thereby (see, e.g., paragraphs [0003], [0008], [0306] – [0311], [0315] and [0322]).

The above paragraph citations should not be construed as being limiting. Of course, additional and alternative support can be found throughout the application as well.

GROUND OF REJECTION TO BE REVIEWED ON APPEAL

1. Claims 7, 37, 67 and 96-98 stand finally rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,848,413 (hereafter referred to as “the Wolff patent”) in view of U.S. Patent No. 3,950,782 (hereafter referred to as “the Carey patent”).

ARGUMENT

Rejections under U.S.C. 102(e) over the Wolff patent in view of the Carey patent

Claims 7 and 96

Independent claim 7 recites:

7. *A method of connecting a user computing device to one of a plurality of remote computers available for communication over a network comprising:*
a) reading an audio signal to obtain an index encoded therein;
b) accessing a database with the index, the database comprising a plurality of records that link an index to a pointer which identifies a remote computer on the network;
c) obtaining a pointer from the database with at least reference to the index; and
d) using the pointer to establish communication with the remote computer identified thereby.

The Wolff patent teaches away from its combination with an encoded audio signal.

The Wolff patent deals with hard copy documents (e.g., paper documents). Please see, e.g., Fig. 3 (“Fig. 3 illustrates an example of a hard copy document with machine readable information”); the abstract, and Col. 3, lines 56-58 (“Fax machine 101 also includes a print engine to produce hard copy representation of received facsimile transmissions, such as document 107.”). A machine-readable code (e.g., a barcode or so-called “digital paper” – printed dots and dashes) is printed on a paper document. Please see Col. 4, lines 45-50. A user must interact with the paper document by selecting a printed link. Please see Col. 5, lines 4-22. For

example, a user draws a circle around a barcode or otherwise places a mark on the paper. Please see Col. 5, lines 6-22. Fig. 3 from the Wolff patent is reproduced below and illustrates link selection by circling the “Ricoh California Research Center home page” on a paper document. The circled document is then faxed to a gateway for processing (see, e.g., Col. 3, lines 32-41).

Web Fax gateway

This is the home page for the web fax gateway. This page was sent in response to a blank page (or one for which we failed to properly parse the links).

Words or pictures with codes under them, like this word represent active links. You may retrieve the document associated with such a link by drawing a complete circle around the word or picture (make sure that the circle includes the code below the word or picture) and faxing the document back to the WebFax gateway.

You might like to follow some of these links:

- Ricoh California Research Center home page.
- Greg Wolff's home page.
- Steve Savitzky's home page.
- Some demo sites.

FIG 3

Because the Wolff system requires print and scan functionality, its applicability to encoded audio signals is precluded. For example, the Wolfe patent states: “The system of the present invention does not require a facsimile machine so long as the system includes components and devices that can provide functionality provided by the facsimile machine.” See Col. 4, lines 10-13 (emphasis added). So the Wolff system either requires a facsimile machine or facsimile functionality, both of which necessarily require print and scan capability. Please see, e.g., Col. 5, lines 35-36 and Col. 4, lines 55-57. Such an express print and scan requirement teaches away from replacing Wolfe’s paper-based messaging with an encoded audio signal.

The final Office Action fails to establish a prima facie case of obviousness for modifying the Wolff patent with the Carey patent.

An obviousness inquiry requires consideration of the level of ordinary skill in the pertinent art at the time of the invention. Please see Graham v. John Deere, 383 U.S. 1, 17-18, 148 USPQ 459, 467 (1966). We respectfully submit that one of ordinary skill in the art at the time of invention would have an understanding of audio encoding and audio recognition techniques; this person would also have basic network addressing knowledge.

We further submit, given the above level of skill, an audio encoding artisan would not instinctively consult the Wolff patent's paper-based techniques. (Our electronic word searching of the Wolff patent did not even find the words "audio", "sound," and "audible" discussed therein.) The final Office Action fails to establish whether it was commonplace for an audio encoding artisan to consult paper-based arts for solutions. Moreover, there does not appear to be a known, unifying problem with a predictable solution encouraging an audio encoding artisan to reach across the wide chasm to the paper-based arts.

But, even if an audio encoding artisan did consult the Wolff patent, the level of skill needed to modify Wolff's paper-based techniques and required print and scan functionality would likely be outside of her audio expertise and basic networking knowledge. We find it difficult to believe that an encoded audio signal could be integrated with the paper-based system in the Wolff patent without additional knowledge or invention. For example, how would a user select a link in one of Carey's audio address messages using the print and scan functionality required in the Wolff patent? (It may be difficult to draw a circle around an audio signal.) Additional invention renders such a combination non-obvious.

The Wolff patent and the Carey patent also seem incompatible if combined as suggested in the final Office Action; indeed, there does not appear to be sufficient "interrelated teachings of multiple patents" to support the combination. Please see KSR Int'l Co. v. Teleflex, Inc., No. 04-1350 (U.S. Apr. 30, 2007), slip op. at 14. For example, the Wolff patent is focused on paper-based messaging, requiring devices with print and scan functionality, while the Carey patent

discusses audio “address messages” placed on magnetic tape. Thus, the applied patents do not seem to include sufficient interrelated teachings.

Given the knowledge possessed by a person of ordinary skill in the art, additional knowledge or invention needed to combine as suggested in the final Office Action, and the incompatibility of the Wolff patent with the Carey patent, there is not “an apparent reason to combine the known elements in the fashion claimed . . .” Please see KSR, slip op. at 14.

Thus, the final Office Action fails to establish a *prima facie* case of obviousness.

The final Office Action overstates the teachings of the Carey patent.

The final Office Action acknowledges that the Wolff patent does not teach encoding an index with an audible signal. Please see the final Office Action, page 2, last paragraph. We agree. (More precisely, the Wolff patent does not teach at least *reading an audio signal to obtain an index encoded therein* as recited in claim 7.)

The Carey patent is cited to show “[t]he use of audio signal to carry embedded digital data *such as a network address* is well known in the art.” Please see the final Office Action, page 2, last line – page 3, line 2.

We submit that this position significantly *overstates* the Carey patent’s teachings. The abstract is silent with respect to an encoded audio signal carrying a *network address*.

Instead, the Carey patent’s “address messages” are associated with data messages on separate tracks of *the same* multi-track magnetic tape. We do not see any mention of the address messages carrying “network addresses”.

The stated reasons to combine reflect distortion caused by hindsight bias.

The stated reasons to combine the Wolff patent with the Carey patent assumes what it seeks to prove. Please see the final Office Action, page 3, lines 3-8. That is, the stated reasons assume that one of ordinary skill is in possession of the invention, rather than establishing a rationale for the combination. For example, the final Office Action states that the proposed modification would have been obvious since “it would have enabled performing data retrieval

and/or network accessing in an audio-based application.” But this reasoning assumes knowledge of the invention, rather than establishing reasons, need or market pressure to make the claimed arrangement. There are no stated reasons that would lead an artisan to the arrangement claimed without use of Appellant’s specification and claim as a guide. Thus, the reasoning is improper and reflects “the distortion caused by hindsight bias.” Please see KSR, slip op. at 17.

We respectfully request reversal of the final rejection of claim 7 for at least the above reasons.

Claims 37 and 97

Independent claim 37 recites:

37. *A system comprising:*

a. a user computing device;

b. an input device associated with the user computing device, wherein the input device is configured to obtain an index from an encoded audio signal;

c. means for storing a database comprising a plurality of records that link an index to a pointer which identifies a remote computer;

wherein the user computing device comprises:

means for accessing the database to extract a pointer from the database with at least reference to the index; and

means for using the pointer to establish communication with the remote computer identified thereby.

Claim 37 recites features that are analogous to some of those discussed above with respect to claim 7; so the final rejection of claim 37 should be reversed for at least reasons analogous to those discussed above.

For example, claim 37 recites an input device configured to obtain an index from an encoded audio signal. The final Office Action relies on the Carey patent since the Wolff patent is deficient in this regard.

But the Wolfe patent discloses a system that handles paper documents, requiring a user to select a link printed on a paper document, e.g., by physically marking the paper document, and faxing a selected link to a gateway. Neither patent provides a mechanism to select such a link from the audio signal in the context of the Wolf patent. And neither patent provides enabling clues on how one would invent a system that would handle the audio signal, e.g., utilized in the context of claim 37.

Indeed, the Wolff's patent's sole reliance on paper-based communication and required print and scan functionality *teaches away* from combining with an audio encoding technique.

The final Office Action also fails to establish a *prima facie* case of obviousness for the proposed combination of the Wolff patent with the Carey patent for at least reasons analogous to those mentioned above with respect to claim 7.

The final Office Action also overstates the teachings of the Carey patent as mentioned earlier. And the reasons of combining the Wolff patent with the Carey patent reflect distortion caused by hindsight bias.

We respectfully request that the final rejection of claim 37 be reversed.

Claims 67 and 98

Independent claim 67 recites:

67. *A user computing device comprising:*

- a. an input device configured to obtain an index from an encoded audio signal; and*
- b. computer processing circuitry to execute instructions to:*

- utilize the index to access a database comprising a plurality of records that link an index to a pointer which identifies a remote computer;*
 - retrieve from the database a pointer with at least reference to the index; and*
 - use the pointer to establish communication with the remote computer identified thereby.*

Claim 67 recites features that are analogous to some of those discussed above with respect to claim 7; so the final rejection of claim 67 should be reverse for at least reasons analogous to those discussed above.

For example, claim 67 recites an input device configured to obtain an index from an encoded audio signal. The final Office Action relies on the Carey patent for this feature since the Wolff patent is deficient in this regard.

But the Wolfe patent discloses a system that handles paper documents, requiring a user to select a link printed on a paper document, e.g., by physically marking the paper document, and faxing a selected link to a gateway. Neither patent provides a mechanism to select such a link from the audio signal in the context of the Wolf patent. And neither patent provides enabling clues on how one would invent a system that would handle the audio signal, e.g., utilized in the context of claim 67.

Indeed, the Wolff's patent's sole reliance on paper-based communication and required print and scan functionality *teaches away* from combining with an audio encoding technique.

The final Office Action also fails to establish a *prima facie* case of obviousness for the proposed combination of the Wolff patent with the Carey patent for at least reasons analogous to those mentioned above with respect to claim 7.

The final Office Action also overstates the teachings of the Carey patent as mentioned earlier. And the reasons of combining the Wolff patent with the Carey patent reflect distortion caused by hindsight bias.

We respectfully request that the final rejection of claim 67 be reversed.

CONCLUSION AND REQUEST FOR REVERSAL

Appellant respectfully requests the Board to reverse the final rejection of the pending claims.

Reversal is warranted at least because the Wolff patent teaches away from its combination with an encoded audio signal, the final Office Action fails to establish a *prima facie* case of obviousness, the final Office Action overstates teachings relied upon in the Carey patent, and because the reasons to combine the Wolff patent and the Carey patent reflect distortion caused by hindsight bias.

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Respectfully submitted,

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CLAIMS APPENDIX

1 – 6. canceled.

7. (previously presented): A method of connecting a user computing device to one of a plurality of remote computers available for communication over a network comprising:

- a) reading an audio signal to obtain an index encoded therein;
- b) accessing a database with the index, the database comprising a plurality of records that link an index to a pointer which identifies a remote computer on the network;
- c) obtaining a pointer from the database with at least reference to the index; and
- d) using the pointer to establish communication with the remote computer identified thereby.

8 – 36. canceled.

37. (previously presented): A system comprising:

- a. a user computing device;
- b. an input device associated with the user computing device, wherein the input device is configured to obtain an index from an encoded audio signal;
- c. means for storing a database comprising a plurality of records that link an index to a pointer which identifies a remote computer;

wherein the user computing device comprises:

means for accessing the database to extract a pointer from the database with at

least reference to the index; and

means for using the pointer to establish communication with the remote computer identified thereby.

38. – 66. canceled.

67. (previously presented): A user computing device comprising:

a. an input device configured to obtain an index from an encoded audio signal; and

b. computer processing circuitry to execute instructions to:

utilize the index to access a database comprising a plurality of records that link an index to a pointer which identifies a remote computer;

retrieve from the database a pointer with at least reference to the index; and

use the pointer to establish communication with the remote computer identified thereby.

68. – 95. canceled.

96. (previously presented): The method of claim 7 wherein the pointer comprises at least one of a uniform resource locator (URL), IP address or network address.

97. (previously presented): The system of claim 37 wherein the pointer comprises at least one of a uniform resource locator (URL), IP address or network address.

98. (previously presented): The user computing device of claim 67 wherein the pointer comprises at least one of a uniform resource locator (URL), IP address or network address.

EVIDENCE APPENDIX

(No Evidence)

RELATED PROCEEDINGS APPENDIX
(No Related Proceedings)